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COMPREHENSIVE ENVIRONMENTAL ASSESSMENT AND RESPONSE PROGRAM (CEARP)

REMEDIAL INVESTIGATION WORK PLAN PREPARATION

FOR THE

LOW PRIORITY AREAS

November 1987

Rocky Flats Plant
Golden, Colorado

Prepared by
RCRA/CERCLA Department
Rockwell International
North American Space Operations

ADMIN RECCRD

Best Available Copy

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A-DU16-000168

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COMPREHENSIVE ENVIRONMENTAL ASSESSMENT AND RESPONSE PROGRAM

SCOPE OF WORK FOR INVESTIGATIONS OF LOW PRIORITY SITES

SCOPE

This task is part of a comprehensive program of remedial investigations, feasibility studies and remedial/corrective action projects to be performed at Rocky Flats as part of the Department of Energy's (DOE) Comprehensive Environmental Assessment and Response Program (CEARP). This particular task pertains to the writing and production of the work plan which will describe in detail the scope, objective, procedures of the different tasks needed for the investigations of 75 solid waste management units (SWMU) at the Rocky Flats Plant. The Scope of Work (SOW) also includes review and response to comments on the draft by the regulatory agencies and preparation of the final plan. Rockwell personnel will be notified of any problems encountered and they will also supervise the progress of the report preparation.

DESCRIPTION OF WORK

The work plan will address in detail all necessary tasks, objectives, procedures and rationale for a particular approach/procedure needed to assess any air, biota, soil, ground water, and surface water contamination including the rate and extent of migration, as a result of a release from a SWMU. The work plan shall be consistent with the requirements of CERCLA, RCRA and the EPA, CDH and DOE Compliance Agreement. Current versions of the following DOE and EPA guidance documents should be followed in preparing the work plan:

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1. CEARP's Comprehensive Generic Monitoring Plan (CGMP)
2. CEARP's Installation Generic Monitoring Plan (IGMP)
3. EPA's Guidance on Remedial Investigations under CERCLA.
4. EPA's Guidance on Facility Investigations under RCRA.
5. EPA's Guidance on Preliminary Assessments/Site Investigations (CERCLA) and Facility Assessments (RCRA).

Specific sites to be addressed in the work plan are identified in table 1. Available information on these sites is contained in Appendix 1 of the Rocky Flats Plant RCRA Part B permit application. Some sites may only require a Preliminary Assessment/Site Inspection PA/SI. Commitments in the compliance agreement which are not found in guidance documents and must be contained in this work plan are:

1. List of remaining SWMU and CERCLA areas to be investigated.
2. Environmental Pathways Evaluation and Endangerment/Risk Assessment Plans. However, these will be developed by previous Remedial Investigations for inclusion into the work plan.

As outlined in most of the recommended references the following topics should be approached. Areas which may be extracted from other existing Rocky Flats documents are also presented.

REGIONAL DESCRIPTION

The regional setting of the plant shall be discussed as far as the geologic setting, demographic location and other facets describing Rocky Flats' regional description. This for the most part is available in existing documents.

SWMU CHARACTERISTICS

The historical description of the units use during operation and

after operation shall be presented. The description shall indentify the types of wastes, the unit's dimensions, amount of waste etc. Also to be included is its location, geology, topography, surface water and groundwater and current condition in light of the above topics. Existing information on the individual SWMUs is contained in Appendix 1 of the RCRA Part B permit application.

SOURCE CHARACTERIZATION

This section is to provide an approach to how the potential source(s) will be evaluated in terms of its potential for continued release. The various methods to be implemented and the quantity of work to be performed and the objectives are to be outlined.

PATHWAY and PLUME CHARACTERIZATION

This section will describe the various approaches in delineating the pathway of migration and the extent of the contaminant plume. Here again, the quantity of work and the methods to be implemented shall be described in detail.

METHODS OF FIELD ACTIVITIES

This section may be presented as a appendix to the work plan. It will be used to describe in detail all of the methods used in the field to investigate the extent of contamination. Topics such as drilling techniques, well construction, soil gas, and geophysical techniques will be found here.

SAMPLING and ANALYSIS PLAN

This section will describe all the sampling and analytical

procedures for groundwater, surface water and soil. Surface water and groundwater procedures already exist and will only have to be reviewed. However, input on the soil sampling procedure being used currently may need to be reviewed in closer detail. In addition to the previous sampling procedures all the analytical procedures will be found in this section. It is possible to combine this section with the field methods section.

QUALITY ASSURANCE/QUALITY CONTROL

The use of properly documented QA/QC procedures for monitoring activities is essential to the work performed at RFP. All facets of the field and laboratory analyses investigations must have a detailed QA/QC procedures.

HEALTH and SAFETY PLAN

This section will describe the overall health and safety procedures to be used during the various activities of the investigations. SWMU specific concerns are to be identified under the SWMU characterization section. Also as part of this section all of the plant policy safety and environmental requirements are to be outlined as well as a flow chart of the responsibilities and decision making processes from the field crews to the project managers.

PERIOD OF PERFORMANCE

A project kickoff/start-up meeting will be held within two days of contract award. Weekly project status/progress meetings will be held between Rockwell and the subcontractor.

The final draft of the work plan will be delivered to Rockwell

International on May 16, 1988. However, several review periods will be held prior to the final draft deadline. The first work draft will be due March 14, 1988. Subsequent review and revision schedules will be established after this date. In addition, during the writing process, Rockwell personnel will oversee the progress of the document. Following the final draft's delivery responses to the state health department and EPA's comments should be included. Comments from the regulators are expected to be delivered to Rockwell by August, 1988.

PERSONNEL

The staff proposed to work on the project shall be identified and their project responsibilities described. Resumes of proposed staff shall be incorporated in the response to Request for Proposals.

THE DELIVERABLES

Minutes of all meetings shall be kept by the subcontractor and delivered to Rockwell within two days following the meeting. Written progress reports which include a description of problems encountered and their resolution, or proposed resolution plus plans for next weeks activities shall be delivered to Rockwell weekly.

The following is a list of additional deliverable responsibilities;

1. A milestone chart shall be prepared and delivered to Rockwell with the proposal. The milestone chart shall be kept up to date by the subcontractor.
2. A project budget schedule including planned labor hours and costs shall be prepared and updated with actual budget data and delivered to Rockwell on a biweekly basis.

The working drafts which will be available for internal review and comment will consist of 10 bound copies. The final draft will consist of 30 bound copies.

TABLE 1. List of Low Priority SWMU

Reference Number	Unit
115	Original Landfill
116	Multiple Solvent Spill
	116.1 West Loading Dock
	116.2 South Loading Dock
117	Chemical Storage
	117.1 North Side
	117.2 Middle Side
	117.3 South Side
118	Multiple Solvent Spill
	118.1 West of Bldg 730
	118.2 South of Bldg 776
120	Fiberglassing Areas
	120.1 N of Bldg 664
	120.2 W of Bldg 664
122	Underground Concrete Tank
123	Valve Vault 7
	123.1 Valve Vault 7
	123.2 Valve Vault W of Bldg 707
124	Radact Ldg Waste Storage
	124.1 30,000 gal.
	124.2 14,000 gal.
	124.3 14,000 gal.
125	Holding Tank
126	Out-of-Service Process Waste Tanks
	126.1 Westernmost tank
	126.2 Easternmost tank
127	Low Level Radioactive Waste Leak
128	Oil Burn Pit No.1
129	Oil Leak
131	Radioactive Site 700 Area #1
132	Radioactive Site 700 Area #4
133	Ash Pits
	133.1 Ash Pit 1-1
	133.2 Ash Pit 1-2
	133.3 Ash Pit 1-3
	133.4 Ash Pit 1-4
	133.5 Incinerator
	133.6 Concrete Wash Pad
134	Lithium Metal Test Site
135	Cooling Tower Blowdown

136	Cooling Tower Ponds
	136.1 NE corner of Bldg 460
	136.2 W of Bldg 460
	136.3 S of Bldg 460
	W of Bldg 444
137	Cooling Tower Blowdown Bldg 774
138	Cooling Tower Blowdown Bldg 779
139	Caustic/Acid Spills
	139.1 Hydroxide Tank Area
	139.2 Hydrofluoric Acid Tanks
141	Sludge Dispersal
142	Retention Ponds (A,B,C Series)
	142.1 through 142.11
143	Old Outfall
144	Sewer Line Break
169	Waste Drum Peroxide Burial
170	P.U. & D. Storage Yard Spills
171	Solvent Burning Ground
172	Central Avenue Waste Spill
173	Radioactive Site-900 Area
184	Bldg 991 Steam Cleaning Area
185	Solvent Spill
186	Valve Vault 12
187	Acid Leaks(2)
188	Acid Leaks
189	Multiple Acid Spills
190	Caustic Leak
191	Hydrogen Peroxide Spill
192	Antifreeze Discharge
193	Stream Condensate Leak
194	Stream Condensate Leak
195	Nickel Carbonyl Disp.
196	Water Treatment Plant Backwash Pond
197	Scrap Metal Sites

New
 P.B. steps

DO NOT APPLY THE REQUISITIONER IS RESPONSIBLE TO: 100 K-15 FOR THE ITEM(S) RECORDED BELOW.

- () 1. Estimate the total cost as \$ 100 K-15 for the item(s) recorded below.
- () 2. Record the Hazardous Materials Rating below: OR () the item(s) is/are not listed in the Hazardous Materials Manual, but was reviewed by Industrial Hygiene (signed).
- () 3. Route the Requisition, for Instrumentation Management for the required (Receiving Compliance Testing Code and signature (signed)).
- () 4. If Requisition is for a service to be performed on plant site, signature of Cognizant Safety Engineer for building is required (signed).
- () 5. Record the Responsibility Code and all required Capital Property number(s) below: OR route the Requisition to Property Accounting to get any of this needed information recorded below.
- () 6. Get all other Authorizations-OR SPECIAL APPROVALS TO PURCHASE-as defined in the Plant Policies Manual: BEFORE routing the Requisition to Purchasing for acquisition. (Reference RFPM PNC2 500)

REQUISITION

DATE 1-5-88
SUGGESTED SUPPLIERS
ASI/IT

No. P 375955
SHADED AREA LEFT
PURCHASING DEPT. ONLY
PURCHASING DOCUMENT NO. 2

AUTHORIZED SIGNATURE PER RFPM OM3-204

ENTER PREVIOUS PURCHASE ORDER NUMBER

AUTHORIZED AGENT

ISSUED TO:

OVER \$40,000

EXTENSION

TO \$3,000

TO \$40,000

DATE

F.U. CODE 13

SELLER NO. 18 19

CODE NO. 28

DELIVERY DATE 29

SHIP VIA 34 35

F.O.B. 49 50 51

TRANSPORTATION TERMS: 69 70

1 - ACCOUNT OF ROCKWELL - DO NOT INSURE

PAYMENT TERMS: 71

2 - ACCOUNT OF SELLER

3 - SEE SCHEDULE

79

ROCKWELL CODE NO. 10

PAGE 62

PAGES 71

1

QUANTITY 67 68

UNIT PRICE 72

22 23

UNIT 71

TOTAL PRICE 80

MATERIAL AND SPECIFICATIONS

UNIT PRICE 72

TOTAL PRICE 80

1

QUANTITY 67 68

UNIT PRICE 72

Preparation of Work Plan for Investigations of

UNIT 71

TOTAL PRICE 80

low priority SWMU sites as part of CEARP

UNIT PRICE 72

TOTAL PRICE 80

Remedial Investigations. (see attached scope of

UNIT PRICE 72

TOTAL PRICE 80

work).

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REQUIRED DELIVERY DATE (SEE INSTRUCTIONS ON BACK)

REQUISITION NO. 19 20 22 23 25 26

ACCOUNT NO. 30 31

ITEMS 19 20 22 23 25 26

SUFFIX BN

34 35

JOB NO. 36 37

DELIVER TO 44 45

BLDG. 57 58

DOOR 60 61

NAME Tom Greengard

DEPT. RCRA/CERCLA

Bldg. 750

NAME Brent Lewis

DEPT. EM/RCRA

BLDG. T452F

PHONE

REQUISITIONER

COPY OF P.O. TO: 79

NAME Tom Nielson
DEPT. RCRA/CERCLA
BLDG. 750